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EXAMINER

LERNER, MARTIN

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 03/17/2004

26

Please find below and/or attached an Office communication concerning this application or proceeding.

PR24

# Office Action Summary

Application No.

09/392,844

Applicant(s)

AUGUST ET AL.

Examiner

Martin Lerner

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 to 24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 to 24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 21.
- 4) ☒ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. 19.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

<b>Interview Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/392,844	AUGUST ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Martin Lerner	2654	

All participants (applicant, applicant's representative, PTO personnel):

(1) Martin Lerner. (3)\_\_\_\_\_.

(2) Joseph Dreher. (4)\_\_\_\_\_.

Date of Interview: 07 October 2003.

Type: a) ☒ Telephonic b) ☐ Video Conference  
c) ☐ Personal [copy given to: 1) ☐ applicant 2) ☐ applicant's representative]

Exhibit shown or demonstration conducted: d) ☒ Yes e) ☐ No.  
If Yes, brief description: Proposed After-Final Amendment.

Claim(s) discussed: Claims 10 to 14, 17, and 19.

Identification of prior art discussed: Ferrell, Henton, Mostow, and Adams, Jr. et al.

Agreement with respect to the claims f) ☒ was reached. g) ☐ was not reached. h) ☐ N/A.

Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments: See Continuation Sheet.

(A fuller description, if necessary, and a copy of the amendments which the examiner agreed would render the claims allowable, if available, must be attached. Also, where no copy of the amendments that would render the claims allowable is available, a summary thereof must be attached.)

THE FORMAL WRITTEN REPLY TO THE LAST OFFICE ACTION MUST INCLUDE THE SUBSTANCE OF THE INTERVIEW. (See MPEP Section 713.04). If a reply to the last Office action has already been filed, APPLICANT IS GIVEN ONE MONTH FROM THIS INTERVIEW DATE, OR THE MAILING DATE OF THIS INTERVIEW SUMMARY FORM, WHICHEVER IS LATER, TO FILE A STATEMENT OF THE SUBSTANCE OF THE INTERVIEW. See Summary of Record of Interview requirements on reverse side or on attached sheet.

Examiner Note: You must sign this form unless it is an Attachment to a signed Office action.

  
Examiner's signature, if required

## Summary of Record of Interview Requirements

### Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record

A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

#### Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews

##### Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

##### 37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,  
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

#### Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was agreed to if an agreement was reached, or any other comments:

Joseph Dreher called to discuss possible claim amendments to bring the case in condition for allowance. Initially, Martin Lerner proposed amending the independent claims to include the limitations of claims 11 to 14, and possibly claim 19, if incorporated into independent claim 17. Joseph Dreher then argued that if claim 19 would be allowable, then claim 10 should also be allowable if similarly amended to include the limitations of independent claim 17. However, after receiving the proposed amendment and reviewing the prior art, Martin Lerner called back Joseph Dreher and stated it appeared a combination of Adams, Jr. et al. and Henton would render obvious the proposed independent claims. Martin Lerner further stated that if claims 11 to 14 were incorporated into independent claim 17, they would still appear to be allowable. At this point, Joseph Dreher indicated he would file the proposed amendment, await response from the Patent Office, and possibly file a Request for Continued Examination.

## DETAILED ACTION

### *Drawings*

This application has been filed with informal drawings, which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 5 to 7, 9, 15, 20, and 23 are rejected under 35 U.S.C. 102(a) as being anticipated by *Ferrell*.

Regarding independent claim 1, *Ferrell* discloses an interactive speech and language training system, comprising:

“a first module configured to convert input text to audible speech in a selected language, the audible speech being patterned after a model” – speech synthesizer 74 forms an audio representation of the vocabulary elements; vocabulary library 68 includes recorded digitized representations of vocabulary elements (“models”) (column 7, lines 40 to 45: Figure 3); a vocabulary element, such as a word or phrase is

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presented both visually and aurally to the individual in a native language or a non-native language ("in a selected language")(column 4, lines 33 to 57: Figures 1 and 4);

"a user interface configured to receive utterances spoken by a user in response to a prompt to replicate the audible speech" – a vocabulary element is presented both visually and aurally to the individual ("a prompt"), and the individual is given a period of time to initiate a response; the user's response is received; for example, the user may pronounce the vocabulary element (column 4, line 44 to column 5, line 10: Figure 1: Steps 12 to 14; Figure 4);

"a second module configured to recognize the utterances and provide feedback to the user, the feedback being comprised of a confidence measure reflecting a precision at which the user replicates the audible speech in the selected language based on a comparison of the utterances to one of the audible speech and the model, wherein the confidence measure is provided as scores for replication of at least one of paragraphs, sentences, words and sub-words" – the responses are evaluated for correctness and appropriate feedback is presented to the user based on the correctness of the response; in the preferred embodiment, the feedback includes both visual and aural feedback; visual feedback is provided by a needle gauge at the bottom of the screen which indicates the degree of correct pronunciation ("confidence measure")(column 5, lines 8 to 25: Figure 1; Steps 18 and 20); icon 84 provides visual feedback in the form of a confidence meter which indicates the correctness of a user response (column 8, lines 1 to 3: Figure 4); a vocabulary element may be a phoneme, word, phrase, sentence, or paragraph ("at least one of paragraphs, sentences, words

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and sub-words”) (column 4, lines 44 to 51) implicitly, a meter having a needle gauge reflects a numeric “score”.

Regarding independent claim 23, *Ferrell* further discloses providing feedback to the user “on each sub-word or phoneme portion of the utterances” – a vocabulary element may be a phoneme, word, phrase, sentence, or paragraph (“at least one of paragraphs, sentences, words and sub-words”) (column 4, lines 44 to 51); visual and aural feedback is provided for each vocabulary element, and each vocabulary element can be a phoneme, which is also a sub-word portion.

Regarding claims 5 and 6, *Ferrell* discloses vocabulary library 68 (“files for storing model pronunciations”) includes digital representations of vocabulary elements (column 7, lines 40 to 45: Figure 3); a vocabulary element may be a phoneme (“phoneme model”), word, sentence, or paragraph; the aural presentation preferably includes a synthesized utterance corresponding to the vocabulary element; the user may pronounce the vocabulary element (column 4, line 40 to column 5, line 10: Figure 1: Steps 12 to 14).

Regarding claim 7, *Ferrell* discloses the presentation is divided into multiple lessons incorporating new vocabulary elements (column 4, lines 55 to 57; column 5, lines 26 to 36: Figure 2).

Regarding claim 9, *Ferrell* discloses unfamiliar vocabulary elements are introduced with a definition (“dictionary files”)(column 5, lines 33 to 36: Figure 2).



Regarding claim 15, *Ferrell* discloses vocabulary library 68 ("specific pronunciation files") includes digital representations of vocabulary elements (column 7, lines 40 to 45: Figure 3).

Regarding claim 20, *Ferrell* discloses icon 84 provides visual feedback in the form of a confidence meter, which indicates the correctness of a user response (column 8, lines 1 to 3: Figure 4); visual feedback is provided by a needle gauge at the bottom of the screen (column 5, lines 11 to 15); icon 84 provides visual feedback in the form of a confidence meter (column 8, lines 1 to 4); confidence meter is an "icon"; aural feedback includes a synthesized voice which speaks the user's name along with an encouraging response such as "Ron, that's close, let's try again." ("an audio segment") (column 5, lines 14 to 18).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 to 4 and 16 to 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ferrell* in view of *Henton*.

Concerning independent claim 16, *Ferrell* discloses an interactive language training system, comprising:

“a first module configured to convert input text to audible speech in a selected language, the audible speech indicative of a model” – speech synthesizer 74 forms an audio representation of the vocabulary elements; vocabulary library 68 includes recorded digitized representations of vocabulary elements (“models”) (column 7, lines 40 to 45: Figure 3); a vocabulary element, such as a word or phrase is presented both visually and aurally to the individual in a native language or a non-native language (column 4, lines 33 to 57: Figure 1);

“a user interface configured to receive utterances spoken by a user in response to a prompt to replicate the audible speech” – a vocabulary element is presented both visually and aurally to the individual (“a prompt”), and the individual is given a period of time to initiate a response; the user’s response is received; for example, the user may pronounce the vocabulary element (column 4, line 44 to column 5, line 10: Figure 1: Steps 12 to 14; Figure 4);

“a third module configured to recognize the utterances and provide feedback to the user, the feedback being comprised of at least one of a score, an icon and an audio segment reflecting a precision at which the user replicates the audible speech in the selected language based on a comparison of the utterances to one of the audible speech and the model, wherein the feedback is provided for replication of at least one of paragraphs, sentences, words and sub-words” – the responses are evaluated for correctness and appropriate feedback is presented to the user based on the correctness of the response; in the preferred embodiment, the feedback includes both visual and aural feedback; visual feedback is provided by a needle gauge at the bottom

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of the screen which indicates the degree of correct pronunciation ("confidence measure")(column 5, lines 8 to 25: Figure 1: Steps 18 and 20); icon 84 provides visual feedback in the form of a confidence meter which indicates the correctness of a user response (column 8, lines 1 to 3: Figure 4); a vocabulary element may be a phoneme, word, phrase, sentence, or paragraph ("at least one of paragraphs, sentences, words and sub-words") (column 4, lines 44 to 51).

Concerning independent claim 16, *Ferrell* discloses visually displayed vocabulary elements ("input text")(Figure 4), but omits:

"a second module synchronized to the first module, the second module producing an animated image of a human face and head pronouncing the audible speech."

However, *Henton* teaches a method and apparatus for synthetic speech with an animated face, suggesting that it is well known to synchronize imaging of a face with synthetic speech for the purpose of instructing the user. (Column 3, Lines 33 to 49: Figure 3) It would have been obvious to one of ordinary skill in the art to include an animated face module in *Ferrell* that synchronizes imaging with synthetic speech as taught by *Henton* for the purpose of instructing a user.

Concerning independent claim 17, *Ferrell* discloses an interactive language training method, comprising:

“converting input text data to audible speech data” – speech synthesizer 74 forms an audio representation of the vocabulary elements (column 7, lines 40 to 45: Figure 3);

“generating audible speech comprising phonemes based on the audible speech data” – a vocabulary element may be a phoneme (“phoneme model”) (column 4, lines 44 to 47: Figure 1: Steps 12 to 14);

“outputting the audible speech through an audio output device” – aural presentation of vocabulary elements utilizes speakers 76 (column 7, lines 37 to 39: Figure 3);

“prompting the user to replicate the audible speech” – a vocabulary element is presented both visually and aurally to the individual (“a prompt”), and the individual is given a period of time to initiate a response; the user’s response is received; for example, the user may pronounce the vocabulary element (column 4, line 44 to column 5, line 10: Figure 1: Steps 12 to 14; Figure 4);

“recognizing utterances generated by the user in response to the prompting” – speech recognition device 70 utilizes microphone 72 to capture and analyze audio input from the user (column 7, lines 17 to 19: Figure 3);

“comparing the audible speech to the utterances” – the responses are evaluated for correctness (column 5, lines 1 to 10; Figure 1; Step 18);

“providing feedback to the user based on the comparison, the feedback comprised of at least one of a score, an icon and an audio segment reflecting a precision at which the user replicates the audible speech, wherein the feedback is

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provided for replication of at least one of paragraphs, sentences, words and sub-words” – in the preferred embodiment, the feedback includes both visual and aural feedback; visual feedback is provided by a needle gauge at the bottom of the screen which indicates the degree of correct pronunciation (“confidence measure”)(column 5, lines 8 to 25: Figure 1; Steps 18 and 20); icon 84 provides visual feedback in the form of a confidence meter which indicates the correctness of a user response (column 8, lines 1 to 3: Figure 4); a vocabulary element may be a phoneme, word, phrase, sentence, or paragraph (“at least one of paragraphs, sentences, words and sub-words”) (column 4, lines 44 to 51).

Concerning independent claim 17, *Ferrell* discloses visually displayed vocabulary elements (“input text”)(Figure 4), but omits:

“generating an animated image of a face and head pronouncing the audible speech” and “synchronizing the audible speech and the video.”

However, *Henton* teaches a method and apparatus for synthetic speech with an animated face, suggesting that it is well known to synchronize imaging of a face with synthetic speech for the purpose of instructing the user. (Column 3, Lines 33 to 49: Figure 3) It would have been obvious to one of ordinary skill in the art to include an animated face module in *Ferrell* that synchronizes imaging with synthetic speech as taught by *Henton* for the purpose of instructing a user.

Concerning claim 2, similar considerations apply.

Concerning claim 3, *Henton* teaches a face and head, which is a "transparent" line drawing (Figure 3).

Concerning claim 4, *Ferrell* must implicitly include at least a volume control for speakers 76.

Concerning claim 18, *Ferrell* discloses lessons (Figure 2) and vocabulary library 68 (Figure 3); these are "stored lesson files" as software in memory of processor 60 (column 7, lines 14 to 25: Figure 3).

Claims 8 and 11 to 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ferrell* in view of *Mostow et al.*

Concerning claim 8, *Ferrell* does not expressly disclose that the input text is based on data received from a source outside the system. However, *Mostow et al.* teaches a related reading and pronunciation tutor involving speech recognition, where an external application such as a tutor for another domain, may dynamically supply text for the tutor to help the user to read. (Column 8, Lines 59 to 61: Figure 1) It would have been obvious to supply the input text from a source outside the system in the interactive language instruction system of *Ferrell* as suggested by *Mostow et al.* for the purpose of providing more flexibility in lesson content.

Concerning claims 11 to 13, *Ferrell* omits tables storing mapping data between word subgroups and vocabulary words, between words and vocabulary words, and between words and examples of parts of speech. However, *Mostow et al.* teaches a related reading and pronunciation tutor where an automatic enhancement function

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includes a heuristic algorithm using tables. Lookup of information in tables identifies sets of words that rhyme with one another, words that look alike, start or end the same etc., by constructing a key for each word that says what set is that word's equivalence class. The word may also be decomposed into its root word and affixes, which implicitly involves identification of the word's part of speech (Column 9, Line 52 to Column 10, Line 33) It would have been obvious to one of ordinary skill in the art to include tables of related words as taught by *Mostow et al.* in the interactive language instruction system of *Ferrell* for the purpose of inferring the pronunciation of words not found in a dictionary.

Concerning claim 14, *Ferrell* omits tables of punctuation, but *Mostow et al.* teaches that the tutoring function takes account of phrase boundaries as indicated by commas and certain other punctuation for the purpose of more accurately aligning recognition results against the text. (Column 5, Lines 11 to 22) It would have been obvious to one of ordinary skill in the art to include a table of punctuation indicating phrase boundaries in the interactive language instruction system of *Ferrell* for the purpose of more accurately aligning recognition results against the text as taught by *Mostow et al.*

Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Adams, Jr. et al.* in view of *Henton*.

Regarding independent claims 21 and 22, *Adams, Jr. et al.* discloses a system and method for interactive language instruction, comprising:

“a first module configured to convert input text to audible speech in a selected language, the audible speech indicative of a model” – for beginner and intermediate level lessons, visually displayed text segments will be accompanied by simultaneously rendered audio presentation of the text segments; text segments may be synthesized in real time by the executive program (“convert input text to audible speech”) (column 7, lines 9 to 15); lessons relate to language learning (“in a selected language”) (column 2, lines 32 to 48); implicitly, synthesized speech is produced from a “model” of speech elements;

“a user interface positioned to receive utterances spoken by a user in response to a prompt to replicate the audible speech” – at each juncture of the lesson at which the student is to utter one or more text segments, the user’s input is provided to the speech recognition interface 2; the positional pacer 17, with input from the local text position management databases 22, may be implemented to continuously prompt the student along the text, identifying (e.g. “follow the bouncing ball”) the word that is being read by the computer instructor or is to be pronounced by the student (column 7, lines 20 to 30: Figures 1 and 2);

“a third module configured to recognize the utterances and provide feedback to the user, the feedback being comprised of at least one of a score, an icon and an audio segment reflecting a precision at which the user replicates the speech in the selected language based on a comparison of the utterances to one of the audible speech and the model” – speech recognition interface 2 recognizes the user’s input; correct input may be actively acknowledged by audio output (“an audio segment”) generated via access to



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the feedback message database 21 (column 7, lines 30 to 33: Figure 2); if the response is not correct, the executive program may access the feedback message database and generate appropriate feedback, at 211, encouraging the reader to respond again; if the repeated response is incorrect, as determined at box 212, the executive program may generate the correct response at 208; if a correct response is received at either 207 or 212, optional positive feedback may be generated at 208 (column 9, lines 40 to 47: Figures 4A and 4B); thus, the feedback is "reflecting a precision at which the user replicates the speech" because various feedback messages are produced corresponding to how well the reader is progressing through the lesson;

"a record and playback module" – throughout the lesson, the audio input from both the student and the computer instructor, along with the text as displayed for utterance by each party, are stored at the session database for replay and resumption 17 (column 7, lines 45 to 51: Figure 2).

Regarding independent claims 21 and 22, *Adams, Jr. et al.* discloses that the executive program generates a computer instructor, perhaps an animated character (column 2, lines 57 to 58), but does not specifically disclose:

"a second module synchronized to the first module, the second module producing an animated image of a human face and head pronouncing the audible speech."

However, *Henton* teaches a method and apparatus for synthetic speech with an animated face, suggesting that it is well known to synchronize imaging of a face with synthetic speech for the purpose of instructing the user. (Column 3, Lines 33 to 49:

Figure 3) It would have been obvious to one of ordinary skill in the art to include an animated face module in *Adams, Jr. et al.* that synchronizes imaging with synthetic speech as taught by *Henton* for the purpose of instructing a user.

Claims 10 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ferrell* in view of *Adams, Jr. et al.*

*Ferrell* omits a record and playback module for providing playback of selected portions of audible speech and utterances from the user. However, *Adams, Jr. et al.* teaches a related system and method for interactive reading and language instruction including a session database for replay and resumption containing all the information necessary to provide a replay of the joint reading of the text by the companion and the student. (Column 4, Lines 17 to 29: Figure 2) Throughout the lesson the audio inputs from both the student and the computer instructor, along with the text as displayed for utterance by each party, are stored at the session database. *Adams, Jr. et al.* suggests that this enhances the learning experience by identifying areas for concentrated effort in the future. (Column 7, Lines 45 to 51) It would have been obvious to one of ordinary skill in the art to include a record and playback module in the system and method for interactive language training of *Ferrell* as suggested by *Adams, Jr. et al.* for the purpose of enhancing the lesson learning experience by identifying areas for concentrated effort.

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Ferrell* in view of *Henton* as applied to claim 17 above, and further in view of *Adams, Jr. et al.*

*Ferrell* omits a record and playback module for providing playback of selected portions of audible speech and utterances from the user. However, *Adams, Jr. et al.* teaches a related system and method for interactive reading and language instruction including a session database for replay and resumption containing all the information necessary to provide a replay of the joint reading of the text by the companion and the student. (Column 4, Lines 17 to 29: Figure 2) Throughout the lesson the audio inputs from both the student and the computer instructor, along with the text as displayed for utterance by each party, are stored at the session database. *Adams, Jr. et al.* suggests that this enhances the learning experience by identifying areas for concentrated effort in the future. (Column 7, Lines 45 to 51) It would have been obvious to one of ordinary skill in the art to include a record and playback module in the system and method for interactive language training of *Ferrell* as suggested by *Adams, Jr. et al.* for the purpose of enhancing the lesson learning experience by identifying areas for concentrated effort.

### ***Response to Arguments***

Applicants' response filed 14 October 2003 does not contain any arguments specifically directed to the claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Lerner whose telephone number is (703) 308-

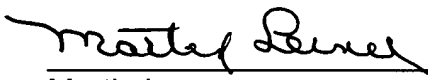
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9064. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Martin Lerner  
Examiner, Art Unit 2654